

of the non-utility generating companies, included investing, managing, and building large infrastructure projects.^{130/}

^{130/} Samuels, "We Kind of Focus on Our Mistakes," *Forbes*, October 24, 1994.

V. BENEFITS OF AMERITECH ENTRY INTO INTERLATA SERVICES

In this Section we turn our attention to our final topic, an evaluation of the benefits of permitting Ameritech into the in-region long-distance business.

A. *The Public Interest and Consumer Welfare*

A fundamental tenet of economic theory is that the public interest will be furthered by Ameritech's entry into interLATA services if a net improvement in consumer welfare is achieved. For purposes here, consumer welfare can be measured along three dimensions: the varieties and qualities of services offered; the quantity of services consumed; and the prices paid for those services. Whether improved qualities, quantities and prices will occur as a result of Ameritech entry will depend on the efficient operation of the market. Ameritech's entry into interLATA services can advance both allocative and dynamic efficiency.

Allocative efficiency refers to the best current use of resources. Allocative efficiency occurs when outputs are sold at prices that reflect the true economic costs of producing the output. Prices play a critical role in achieving allocative efficiency because they signal the cost and value of goods and services. If price is greater than full cost, consumers will purchase less than the optimal quantity; if price is less than full cost, consumers will purchase more. In either case, there is a loss of "social welfare" due to the misallocation of resources.

By dynamic efficiency we refer to the best allocation of resources over time. This is a longer-run concept, and it encompasses innovation and productivity enhancement. One of the chief benefits of an enterprise economy is that rivalry stimulates the development and

adoption of new technologies (i.e., methods of production which reduce the quantity of inputs needed to produce a given level of outputs).

Market processes advance both allocative and dynamic efficiency if there is vigorous competition; and firms are able to organize to provide services most demanded by customers in the most efficient manner. Thus, it is through competition and the efficient organization of the industry, and the firms in it, that dynamic efficiency and hence welfare can be enhanced. The next two sections document the economic benefits of Ameritech entry into interLATA service. These economic benefits will inure directly to consumers through increased choice, innovative services and price reductions.

B. Ameritech's Entry into InterLATA Will Benefit Consumers

Ameritech's entry into the interLATA business will enable it to provide one-stop shopping. This will result in increased consumer choice, product, and service innovation, lower prices and diffusion of these benefits to large numbers of telecommunication users.

1. Increased Choice

As a new entrant, Ameritech will have the incentive to offer new services, one-stop shopping, and improved service quality. Ameritech entry will enhance choice by providing consumers with an additional option for attaining all telecommunications services. This in itself represents an improvement in consumer welfare because consumers will have access to a greater variety of services, service attributes, pricing structures and price levels than currently is the case. Moreover, Ameritech's entry creates pressure on competing carriers to offer the best possible combination of service varieties, attributes, and pricing. Thus,

without Ameritech's entry, not only will consumers have fewer choices, but those choices that they do have will be inferior to what could have been available.

Actions undertaken by the major interexchange carriers in the recent past suggest that competitive pressures and increased choice are much needed.^{131/} One recent action by AT&T makes this point.

AT&T imposed a minimum charge of \$5.00 per month in order for its business customers to get a single bill from Ameritech listing both local service charges from Ameritech and long distance charges from AT&T. AT&T's action is really nothing more than a source of inconvenience to customers that customers could have avoided in a more competitive environment.

2. *Innovative Impacts on Products and Services*

Ameritech's offering of interLATA market will provide new and innovative services for consumers. In a rapidly changing industry such as telecommunications, we anticipate that non-price consumer benefits, in the form of service innovations and technological advances, would likely confer greater benefits upon telecommunications users than would price-related benefits.

Ameritech's long distance subsidiary, Ameritech Communications Inc. (ACI), is positioned to provide innovative and differentiated services and customer care. One reason is that ACI is building its own network with its own proprietary features. Like any integrated

^{131/} The pre-Thanksgiving 1996 rate increases by AT&T and MCI suggest that price competition would be an additional benefit. See "AT&T Raises Base Residential Rates 5.9 Percent," *Washington Telecom Newswire*, November 27, 1996.

telecommunications company, ACI will offer bundles and packages tailored to different clientele. In addition, ACI's state-of-the-art Nortel switches are designed to permit rapid response tailoring requirements to meet customized customer needs. The controlling software is proprietary and was developed specifically for ACI. The software makes the switch an intelligent network platform, permitting, for example, reprogramming of services directly by the customer.

3. *Price Competition*

Price competition is another important source of consumer welfare benefits from Ameritech's entry into the interexchange business. Nominal prices may fall, quality and features of services may rise, or there may be a combination of both. The net result will be an increase in consumer welfare. As the affidavits of Paul MacAvoy and of Robert Crandall and Leonard Waverman demonstrate, Ameritech's entry into long distance will invigorate price competition and could bring about sizeable welfare gains.

4. *Diffusion of Benefits*

The nature of a "network" is that it allows people to communicate; there is, accordingly, a widely-recognized consumption externality, which is to say that the larger the network the more value it confers on all members. Ameritech's entry into interLATA service will help enlarge the overall network-of-networks thereby increasing the value for all. In particular, value will be generated for individuals that, but for Ameritech, would gain nothing from the participation of AT&T or MCI in the market.

To understand the point, it is relevant to note that for many services Ameritech reports that roughly 80% of its revenue derives from 20% of its customers. As new enhanced services are offered, entrants such as AT&T and MCI will target the high-usage 20 percent of the customers, selling to the large pool of less profitable customers only to the extent necessary to protect their long distance revenue streams.

By contrast, Ameritech is uniquely situated to serve customers through mass marketing rather than as a niche marketer. As a provider of basic services, Ameritech already has a broad customer base. The incremental cost of acquiring these customers is low if Ameritech can joint market. In addition, once Ameritech enters these lower margin markets, AT&T and other competitors will be forced to compete in order to protect their currently unchallenged long distance revenue base.

C. Consumer Benefits Generated by Efficiencies and Innovation in the Production Process

Certain social benefits are to be expected as a result of Ameritech's entry into the interLATA business through the resource, cost savings, and efficiency improvements that result from vertical integration and innovation. These savings represent a social benefit in their own right because they free up scarce resources for other uses and they inure to the benefit of telecommunications consumers -- provided that the carriers pass them on in the form of lower prices or improved services. And that imperative is created by the additional competition brought about by Ameritech entry into the interexchange business and the incentives that will create for others to enter the local exchange business. Without

Ameritech's entry it is unlikely that major interchange carriers will fully pass on cost savings, as the history of access charge reductions attest.

1. Efficiencies of Vertical Integration

It is well recognized that the main reason why firms choose to vertically integrate has to do with reducing cost or eliminating a market externality.^{132/} Ameritech's entry into long distance represents an extension of an existing product line and is therefore a form of vertical integration. Because the addition of this, many of the existing physical, human and other assets deployed in the local exchange service business could (except as limited by law and regulation) be deployed to offer long distance and integrated service packages. The ability to bundle services together and provide one-stop shopping utilizing these assets will lead to integration economies and thereby improve the use of society's resources.

Certain integrative efficiencies may be achieved immediately upon Ameritech's entry into interLATA services from non-network sources including some marketing, product development, service provisioning, customer care, billing, and brand identification.^{133/} The integrative efficiencies can be achieved to some extent simply by offering separate long distance and local exchange services out of the same organization (in this case, Ameritech's separate subsidiary, ACI) because the two service families use many of the same inputs in

^{132/} See D. Carlton and J. Perloff, Modern Industrial Organization (Scott, Foresman, 1990) and O. Williamson, The Mechanisms of Governance (Oxford University Press, 1996).

^{133/} The efficiencies will not be fully achieved as long as the separate subsidiary is required because the constraint adds transactions costs and reduces economies of scale and scope due to the likely smaller scope of the long distance affiliate.

the same way. Creating two sets of services from the same inputs allows for sharing of common and fixed costs.^{134/}

2. *The Value to Consumers from Innovations in the Production Process*

Permitting Ameritech into interLATA service will result in more innovation on the supply side.^{135/} Network technologies and bundling efficiencies are ubiquitous in the production of telecommunications services, and permitting Ameritech into the in-region long distance business will permit the firm to find new ways to utilize network- and bundling-related economies. For example, interLATA authorization for Ameritech will increase the value to customers of many broadband services such as remote teaching via video conference.^{136/} Many businesses and educational institutions (e.g., GM, Ford, University of Illinois) have facilities that span several LATAs, and interLATA relief will permit Ameritech to provide services on a company-wide or institution-wide basis. Moreover, because many network services have high fixed costs, the removal of interLATA restrictions

^{134/} There will be additional efficiencies when one-stop shopping is offered that arise from engineering networks to offer combination services, product development, service provisioning and customer service. The engineering economies will come later when the separate subsidiary requirement is eliminated.

^{135/} Competition ensures that the social benefits of production innovations inure to the benefit of consumers.

^{136/} The thrust of telecommunications innovation has been to erase the confines of geography. Wireless technologies can make a phone as mobile as its users. New fiber optic transmission and satellite technologies are greatly reducing the significance of distance as a factor in cost, and new providers are modeling their networks and their equipment to serve a pattern based not on geography but on communities of interest: educational institutions, hospitals, financial markets, corporations, etc.

will, at a minimum, increase the size of the potential customer base and propel forward service offerings which involve significant scale economies and network externalities. In short, in-region interLATA entry by Ameritech-Michigan would enable existing facilities to be utilized more efficiently and would spur the introduction of new network facilities which support innovative services.^{137/}

^{137/} These examples also have a consumer-value component to them: interLATA authorization makes these services more valuable to the consumers. Accordingly, there is a supply story and a demand story to innovation.

VI. CONCLUSION

The unbundling and interconnection provisions of the Act have dramatically eased entry requirements into the local exchange. Indeed, the provisions make economies of scope, scale, and density which Ameritech might possess available to its competitors. This is tantamount to providing assisted entry. Ameritech already faces competition from carriers providing service predominantly over their own telephone exchange facilities in circumstances where it is desirable and rational for such CLECs to provide their own facilities.

There are clear and substantial public interest benefits to Ameritech's entry into the interLATA business. Ameritech's entry will increase consumers choices of carriers but will also stimulate innovation in the provisioning of services and the types of services offered, sharpen price competition and provide incentives for quality improvements. The prospects for Ameritech engaging in anticompetitive conduct in the interLATA business are nil.

Delaying Ameritech entry into interLATA services will not advantage competition or consumers. Delay only advantages Ameritech's competitors, and in that sense is anticompetitive. Moreover, competitive forces are brewing in the form of IXC's, CAP's, cable companies, wireless carriers, electric utilities, out-of-region RBOCs, private networks, and the internet. Every day of delay causes harm, because the benefits of powerful technological and competitive forces are denied to consumers.

VII. QUALIFICATIONS

A. *Qualifications of Robert G. Harris*

My name is Robert G. Harris. I am a Principal at the Law & Economics Consulting Group and Professor Emeritus of Business and Public Policy in the Haas School of Business, University of California, Berkeley. I earned my Bachelor of Arts and Master of Arts degrees in Social Science from Michigan State University and my Master of Arts and Doctor of Philosophy degrees in Economics from the University of California, Berkeley. I currently serve as Co-Director of the Consortium for Research in Telecommunications Policy, a collaborative program of the University of California at Berkeley, the University of Chicago, the University of Michigan and Northwestern University.

At Berkeley, I teach or have taught courses at the undergraduate, MBA and Ph.D. levels, including Business & Public Policy; Business-Government Relations; Antitrust and Economic Regulation; and Industry Analysis and Competitive Strategy. For several years, I organized and taught a course on telecommunications for the staff of the California Public Utilities Commission and a course on telecommunications policies and strategies for company managers and policy-makers from the United States and abroad. While on leave from the University in 1980-81, I served as a Deputy Director at the Interstate Commerce Commission, responsible for cost, economic and financial analysis. In that capacity, I was centrally involved in several major rule makings implementing the motor carrier and railroad regulatory reform acts of 1980 and directed the development of the Uniform Rail Costing System.

My academic research has analyzed the effects of economic regulation and antitrust policy on industry performance, and the implication of changing economics and technology for public policies in transportation and telecommunications. Early in my career, I published extensively on competition, vertical relations and regulatory policies in the rail freight industry. More recently, I have published research on the reform of Japanese telecommunications policy; the strategic character of telecommunications services and its implications for public policies; the effects of regulation and the AT&T divestiture on technological innovation in telecommunications; the deployment and adoption of Integrated Services Digital Network; the development of competition in local access and exchange services; and the development of interconnection policies.

I have testified on telephone rate design, costing and pricing principles, competition policy and alternative regulation before the Federal Communications Commission and before the state commissions of Arizona, California, Colorado, the District of Columbia, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Nebraska, Nevada, New Mexico, Ohio, Oregon, Pennsylvania, Tennessee, Utah, Virginia, Washington and Wisconsin. I have testified before the national regulatory authorities in Canada and Mexico on telecommunications matters and before the United States Senate, the United States House of Representatives and the Joint Economic Committee of Congress on transportation, antitrust and telecommunications policy issues. I submitted testimony to the Illinois Commerce Commission in support of Ameritech's Customer First Plan in 1994.

B. Qualifications of David J. Teece

I am Mitsubishi Bank Professor, Haas School of Business, and Director, Institute for Management, Innovation and Organization, University of California at Berkeley and a Principal at the Law & Economics Consulting Group. I have been a full professor at Berkeley since 1982. Prior to that, I was Assistant and then Associate Professor of Business Economics at the Graduate School of Business, Stanford University. I received my Ph.D. in Economics from the University of Pennsylvania in 1975. As an industrial organization economist, I have studied the economics of technological change, competition policy, and business strategy issues for over two decades. At U.C. Berkeley, I was the Co-founder of the Management of Technology Program, a joint program between the School of Business and College of Engineering, and the Consortium on Competitiveness and Cooperation, a multi-campus research program linking scholars at Berkeley, Stanford, Columbia, Harvard and Wharton who have deep and enduring interests in the long-run performance of the U.S. in the global economy. I am also Chairman of the Consortium for Research on Telecommunications Policy Program, a multi-campus research group with active nodes at UC Berkeley, the University of Michigan, and Northwestern University.

My research has been centrally concerned with the relationship between the structure of firms (especially the scope of their activities) and their performance, particularly the capacity to develop and introduce new technologies. I have had a special interest in innovation, organizational structure and antitrust. Relevant books include Antitrust, Innovation, and Competitiveness (1992, with T. Jorde) and The Competitive Challenge

(1987). Relevant papers include, "Competition and Cooperation: Striking the Right Balance," California Management Review (Spring 1984, with T. Jorde); "Telecommunications in Transition: Unbundling, Reintegration, and Competition," Michigan Telecommunications and Technology Law Review, 4 (1995); and "Competition and Unbundling in Local Telecommunications: Implications for Antitrust Policy," (with Robert G. Harris and Gregory L. Rosston, published in Towards a Competitive Telecommunications Industry: Selected Papers from the 1994 Telecommunications Research Conference, Gerald Brock (ed.), (Lawrence Erlbaum Associates, (1995)). I submitted two papers to the Federal Communications Commission and two affidavits to the Department of Justice in 1994 in support of Ameritech's Customers First Plan. In preparing these papers, I devoted considerable attention to studying the competitive dynamics of the telecommunications industry and to developing and implementing a methodology with which to assess the competitive environment. I also submitted testimony on behalf of AT&T in U.S. v. AT&T.